

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

NUTRIENT-REDUCING WASTEWATER TREATMENT SYSTEM DESIGNATION FORM

DATE: July 28, 2005 (Updated January 2018)

APPLICATION SUBMITTAL DATE(S): December 6, 2004, January 7, 2005 and April 11, 2005

SYSTEM MANUFACTURER: International Wastewater Systems, Inc. (IWS)

SYSTEM NAME(S): IWS model 6000 sequencing batch reactor

DESIGNATED TREATMENT LEVEL¹: Level 2 (Can use 24 mg/L for effluent nitrate (as N) concentration in nitrate sensitivity analysis)

CONDITIONS:

A. This approval is only for IWS 6000 systems that have a design flow over 5,000 gallons per day and are required to obtain a Montana Ground Water Pollution Control System (MGWPCS) Permit pursuant to Administrative Rules of Montana (ARM) 17.30.1022. This requirement is due to the relatively high operation and maintenance requirements for this system, that are less likely to be met for smaller systems.

B. This approval does not extend to IWS 6000 systems that serve facilities with either highly variable wastewater flows or wastewater quality. These facilities include but are not limited to schools, churches, and camps. The effluent data submitted indicated that the IWS 6000 does not provide adequate or consistent nitrogen reduction in facilities with variable wastewater characteristics. To ensure consistent wastewater flows, this approval is valid only for facilities where at least 90% of the design wastewater flow is coming from residential units (or commercial units) where consistent year-round occupancy is anticipated.

C. This approval is also valid for IWS 6000 systems that have additional treatment steps, such as filtration, coagulation, disinfection, or methanol addition, as long as the additional treatment does not affect the basic SBR processes.

D. Approval is valid for residential and non-residential facilities with residential strength wastewater as defined in section 1.2.72 of DEQ 4 – 2013 edition). For systems accepting high strength wastes (as defined in section 1.2.39 of DEQ 4 - 2013 edition) the level 2 designation is valid with proper pre-treatment in compliance with all applicable rules, design standards and as approved by the Department.

APPROVED BY: Eric Regensburger

NOTES:

1 The definitions of level 1a, level 1b, and level 2 are in ARM 17.30.702(9), (10) and (11), respectively.